

Montgomery County Poisoning Death Review, 2016: Quarter I Updated June 20, 2016

Prepared by:

Robert G. Carlson, Ph.D., Professor and Director, Project Director

Linna Li, M.S., Data Manager

Raminta Daniulaityte, Ph.D., Associate Professor and Associate Director, Co-Project Director

Center for Interventions, Treatment, and Addictions Research

Boonshoft School of Medicine

Wright State University

Public Health - Dayton & Montgomery County

Montgomery County Coroner's Office

June 20, 2016

The Poisoning Death Review (PDR) is conducted by the WSU Boonshoft School of Medicine Center for Interventions, Treatment & Addictions Research (CITAR), in collaboration with the Montgomery County Coroner's Office, under contract with Public Health - Dayton & Montgomery County. The PDR was part of the Preventing Unintentional Drug Poisoning Project, which was funded by Public Health – Dayton & Montgomery County and the Ohio Department of Health, with injury prevention block grant funds from the U.S. Centers for Disease Control.

CITAR Wright State University Boonshoft School of Medicine, 3171 Research Park Blvd., Suite 124. Kettering, OH 45420. Office: 937-775-1414.

Highlights of Quarter I Findings

Introduction: This 2016 Quarter I Report presents the Poison Death Review data on unintentional drug overdose deaths based on reports provided by the Montgomery County Coroner's office. The vast majority of deaths occurred January through March, 2016. Of the 89 deaths discussed in this Report, two occurred in April and two in May, 2016.

Methods: The attached tables provide data on: 1) Demographics; 2) Health; 3) History of Substance Abuse; 4) Location of Death; and 5) Toxicology. The toxicology tables indicate mentions of drugs found in decedents' bodies as identified by the Coroner's office. **Drug Mentions:** A drug "mention" means that a specific drug was found in a bodily system or fluid of a decedent, not that the drug was necessarily the sole cause of death. The presence of more than one drug can result in more than one mention from a single decedent. **Limitations:** The highlights below describe comparisons of Quarter I 2016 findings with findings from all of 2015. The comparison of percentages are very preliminary indicators of trends in 2016.

Highlights

- **Dramatic increase in the number of unintentional drug overdose deaths. Eight-nine deaths were reported, largely reflecting January through March, 2016. By comparison, 37 deaths were reported January through March, 2015. The number of deaths more than doubled when comparing January through March, 2015, to the same time period in 2016.**
- Montgomery County Residents: Of the 89 drug overdose deaths, 80 were Montgomery County residents. Comparison of all overdose death data in Montgomery County (n=89) and all overdose death data among Montgomery County residents (n=80) suggest no substantial differences.
- Mentions of illicit fentanyl (non-prescription fentanyl) increased from 41% in 2015 to 66% in Quarter I, 2016.
- Mentions of heroin indicate a decreasing trend from 45% in 2015, compared to 29% in Quarter I, 2016.
- Any prescription opioid mentions indicate a decreasing trend from 31% in 2015, compared to 22% in Quarter I, 2016.
- Any benzodiazepine mentions indicate a decreasing trend from 43% in 2015, compared to 30% in Quarter I, 2016.
- Increasing trend in deaths with Illicit fentanyl but no other central nervous system depressant mentions (13% in 2015, compared to 21% in Quarter I, 2016). This indicates the very powerful effects of illicit fentanyl on the central nervous system and its increasing use.

- Increasing trend in deaths with illicit fentanyl plus no heroin mentions (31% 2015; 49% Q I, 2016). This suggests increases in the availability of illicit fentanyl that has not been mixed with heroin.
- **Overall, the findings indicate a tremendous increase in the impact of illicit fentanyl on the community. The findings indicate that increases in naloxone distribution (including increased provision to opioid users), and linkage of opioid dependent drug users with medicated assisted treatment are urgently needed.**

POISONING DEATH REVIEW SUMMARY REPORT, Quarter 1, 2016. All Cases.

	Total Cases Jan 1- March 31 (estimate)	89		2015 Cases : 259	2014 Cases: 264	2013 Cases: 226	2012 Cases: 162	2011 Cases: 130	2010 Cases: 127
--	---	-----------	--	------------------------	-----------------------	-----------------------	-----------------------	-----------------------	-----------------------

DEMOGRAPHICS

Characteristic	Category	Freq	%	2015 %	2014 %	2013 %	2012 %	2011 %	2010 %
Average Age			40.6	40.7	41.2	42.5	42.8	42.1	40.0
Age Group	<15 years	0	0%	0%	0%	0%	0%	0%	0%
	15-24 years	5	6%	7%	6%	4%	4%	5%	14%
	25-34 years	24	27%	26%	28%	26%	28%	22%	22%
	35-44 years	23	26%	29%	26%	28%	19%	26%	28%
	45-54 years	24	27%	22%	23%	27%	33%	32%	18%
	55-64 years	12	13%	14%	14%	13%	14%	14%	16%
	65-74 years	1	1%	2%	2%	3%	2%	1%	2%
	75+ years	0	0%	0%	0%	0%	0%	0%	0%
Gender	Male	55	62%	68%	62%	67%	60%	59%	57%
	Female	34	38%	32%	38%	33%	40%	41%	43%
Race	White	73	82%	86%	89%	87%	85%	87%	90%
	Black	13	15%	14%	11%	11%	14%	13%	10%
	Other	3	3%	1%	0%	2%	1%	0%	0%
Education	<High School	28	31%	26%	23%	29%	27%	28%	20%
	HS graduate	57	64%	67%	73%	65%	69%	69%	76%
	College graduate	4	5%	6%	3%	4%	2%	2%	2%
	Post-graduate	0	0%	0%	0%	1%	1%	1%	1%
	Unknown	0	0%	1%	0%	2%	1%	0%	0%
Marital Status	Single	49	55%	51%	44%	43%	47%	39%	41%
	Married	8	9%	20%	21%	21%	15%	31%	29%
	Divorced	26	29%	25%	31%	32%	30%	25%	26%
	Separated	1	1%	1%	0%	2%	0%	3%	2%
	Widowed	5	6%	2%	2%	3%	7%	2%	2%
	Unknown	0	0%	1%	0%	0%	0%	0%	0%
Military	Ever in Military	6	7%	7%	8%	7%	9%	4%	13%
Residence	Montgomery Co	80	90%	88%	90%	87%	90%	91%	92%

HEALTH

Characteristic	Freq	%	2015 %	2014 %	2013 %	2012 %	2011 %	2010 %
Physical Disability/Illness	63	71%	66%	68%	78%	81%	74%	79%
Heart Disease	36	40%	42%	52%	58%	58%	56%	65%

HISTORY OF SUBSTANCE ABUSE									
	Total Cases	89		2015 Cases: 259	2014 Cases: 264	2013 Cases: 226	2012 Cases: 162	2011 Cases: 130	2010 Cases: 127
Substance Abuse									
	Freq	%		2015 %	2014 %	2013 %	2012 %	2011 %	2010 %
Any history	84	94%		89%	76%	78%	78%	82%	75%
DEATH INVESTIGATION									
Characteristic	Category	Freq	%	2015 %	2014 %	2013 %	2012 %	2011 %	2010 %
Location of death	Home	49	55%	57%	55%	58%	50%	53%	68%
	Relative's home	1	1%	2%	1%	1%	1%	0%	2%
	Friend's home	6	7%	8%	12%	15%	11%	16%	14%
	Hospital	18	20%	20%	22%	15%	30%	22%	9%
	Drug Trt facility	0	0%	<1%	0%	0%	0%	0%	0%
	Public area	0	0%	1%	3%	4%	2%	2%	2%
	Other	15	17%	11%	6%	8%	4%	6%	4%

TOXICOLOGY REPORT															
<i>This section of the summary includes all substances found in the decedent's body or bodily fluids. There may be multiple drug mentions for each case.</i>	Total Cases 2016	89		2015 Cases: 259		2014 Cases: 264		2013 Cases: 226		2012 Cases: 162		2011 Cases: 130		2010 Cases: 127	
	Characteristic	Category	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq
	Alcohol	17	19%	67	26%	77	29%	63	28%	46	28%	30	23%	29	23%
	Cocaine	29	33%	92	36%	83	31%	59	26%	49	30%	53	41%	38	30%
	Methamphetamine	3	3%	14	5%	11	4%	6	3%	4	2%	2	2%	1	1%
	Heroin	26	29%	117	45%	127	48%	132	58%	95	59%	46	35%	39	31%
	Illicit Fentanyl	59	66%	107	41%	107	41%	20	9%	0	0%	0	0%	0	0%
Prescription Opioids	Any	20	22%	79	31%	98	37%	100	44%	75	46%	81	62%	94	74%
	Oxycodone	8	9%	22	9%	28	11%	24	11%	25	15%	25	19%	29	23%
	Hydrocodone	5	6%	20	8%	43	16%	22	10%	15	9%	19	15%	31	24%
	Methadone	2	2%	11	4%	13	5%	31	14%	20	12%	43	33%	41	32%
	Fentanyl	0	0%	3	1%	7	3%	14	6%	9	6%	8	6%	9	7%
	Tramadol	2	2%	5	2%	5	2%	15	7%	9	6%	5	4%	8	6%
	Hydromorphone	0	0%	5	2%	4	2%	1	0%	0	0%	0	0%	1	1%
	Morphine	4	4%	30	12%	28	11%	16	7%	10	6%	10	8%	11	9%
Anti-Depressants	Any	6	7%	16	6%	41	16%	61	27%	88	54%	41	32%	48	38%
Sedatives (Including Benzos)	Any	31	35%	112	43%	146	55%	133	59%	88	54%	96	74%	96	76%
Benzodiazepines	Any	27	30%	111	43%	134	51%	118	52%	70	43%	84	65%	87	69%
Any Rx Opioid + Any Benzo		14	16%	48	19%	61	23%	67	30%	43	27%	64	49%	73	57%
Two or more CNS Depressants		54	61%	164	63%	181	72%	167	74%	107	66%	107	82%	108	85%
Heroin with No Other CNS Depressant		6	7%	30	12%	20	8%	21	9%	30	19%	6	5%	5	4%
Illicit Fentanyl with No Other CNS Depressant		19	21%	34	13%	19	8%								
Heroin + Any Rx Opioid		5	6%	15	6%	29	11%	25	11%	22	14%	13	10%	16	13%
Any Opiate (Heroin/Rx Opioid/Illicit Fentanyl)		82	92%	239	92%	245	93%	204	90%	148	90%	114	88%	117	92%
Any Rx Opiate + No Heroin		15	17%	64	25%	65	25%	74	33%	50	31%	66	51%	77	61%

Illicit Fentanyl + Heroin		14	16%	24	9%	36	14%								
Illicit Fentanyl + No Heroin		44	49%	81	31%	71	27%								
Methamphetamine + (Heroin or Illicit Fentanyl)		3	3%	11	4%	9	3%								
Cocaine + (Heroin or Illicit Fentanyl)		27	30%	77	30%	72	27%								
Heroin + No Illicit Fentanyl		12	13%	90	35%	89	34%								
Any Benzo + Heroin		7	8%	53	20%										
Any Benzo + Illicit Fentanyl		16	18%	39	15%										
Any Benzo + Any Opioid		27	30%	110	42%										
Cocaine + Heroin		10	11%	47	18%										
Cocaine + Illicit Fentanyl		21	24%	38	15%										
Other Prescription	Any	0	0%	3	1%	36	14%	62	27%	49	30%	48	37%	49	39%
Over-The-Counter	Any	6	7%	13	5%	19	7%	32	14%	32	20%	25	19%	26	20%